NF/268/01

We claim:

- 1. A process for preparation of β -keto aliphatic acid ester, which comprises growing a *Bacillus sp.* IICT 001 in growth medium for a period of at least 3-4 days to obtain broth, extracting the said broth with organic solvent, removing the solvent and purifying the β -keto aliphatic acid ester.
- 2. A process as claimed in claim 1 wherein the growth medium used is selected from the group consisting of nutrient medium and mineral salts medium.
- 3. A process as claimed in claim 1 wherein the growth medium is supplemented with protein and carbon content selected from the group consisting of soyabean meal, corn steep liquor, casein, casein hydrolysate glucose and malt extract.
- 4. A process as claimed in claim 1 wherein the growth of strain is carried out at a temperature range of 20 to 40°C and a pH in the range of 4.5-7.5.
- 5. A process as claimed in claim 1 wherein the solvent for extraction of broth is a chlorinated organic solvent selected from the group consisting of chloroform, dichloromethane and dichloroethane.
- 6. A process as claimed in claim 1 wherein the solvent for extraction of broth is ethyl acetate.
- 7. A process as claimed in claim 1 wherein the solvent for extraction of broth is a polar solvent selected from the group consisting of methanol, ethanol and a mixture thereof.
- 8. A process as claimed in claim 1 wherein the chromatographic method used comprises thin layer chromatography using silica gel as stationary phase and 1:1 methanol CHCl₃ as mobile phase, column chromatography, high pressure liquid chromatography.
- 9. An antibiotic compound β -keto aliphatic acid ester isolated from *Bacillus sp.* IICT 001 and possessing the following spectral properties

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UV max (MeoH) : 225
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<sup>1</sup>H NMR CDCI<sub>3</sub>(80 M\underline{\text{H}}_2): 0.88 t (C\underline{\text{H}}_3); 1.25 s, br (C\underline{\text{H}}_2)n; 2.16s(COC\underline{\text{H}}_2); 3.68 s(COOCH<sub>3</sub>) IR. ^{\text{V}}max(CHCI<sup>3</sup>) : cm<sup>-1</sup> 1730 (ester), 1670 (Carbonyl).
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10. A pharmaceutical composition comprising an effective amount of a β-keto aliphatic acid ester isolated from *Bacillus sp.* IICT 001 and possessing the following spectral properties UV max (MeoH): 225

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^{1}H NMR CDCI<sub>3</sub>(80 M_{2}): 0.88 t (C_{3}); 1.25 s, br (C_{2})n; 2.16s(COC_{2}); 3.68 s(COOCH<sub>3</sub>) IR. ^{V}max(CHCI^{3}) : cm^{-1} 1730 (ester), 1670 (Carbonyl) in admixture with a therapeutically acceptable carrier.
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